

# Surveillance and Broadcast Services ADS-B Program

Alaska Industry Council

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August 11, 2010



Federal Aviation  
Administration



# ADS-B/ATC Transponder Altimetry Source

- The ADS-B final rule requires a single altitude source be used for aircraft equipped with both a transponder and ADS-B
- Some Capstone equipped aircraft do not comply with the single altitude source requirement
- FAA legal council published a Memorandum dated July 29, 2010 (*ADS-B/ATC Transponder Altimetry Source*) which states that aircraft equipped with earlier versions of ADS-B equipment (TSO-C154a / TSO-166 / TSO-C166a) need not comply with the single altitude source requirement until avionics have been upgraded to TSO-C154c
- The contemporaneous amendment to 91.217(b) in the ADS-B rulemaking linked together the ADS-B equipment requirements set forth in 91.225 and 91.227 and the pressure altitude reporting requirements of 91.217. Therefore, the ADS-B equipment referred to 91.217(b) must meet the performance standards required in 91.225 and 91.227. Equipment that does not meet 91.225 and 91.227 is not subject to 91.217

# Southeast Alaska Status

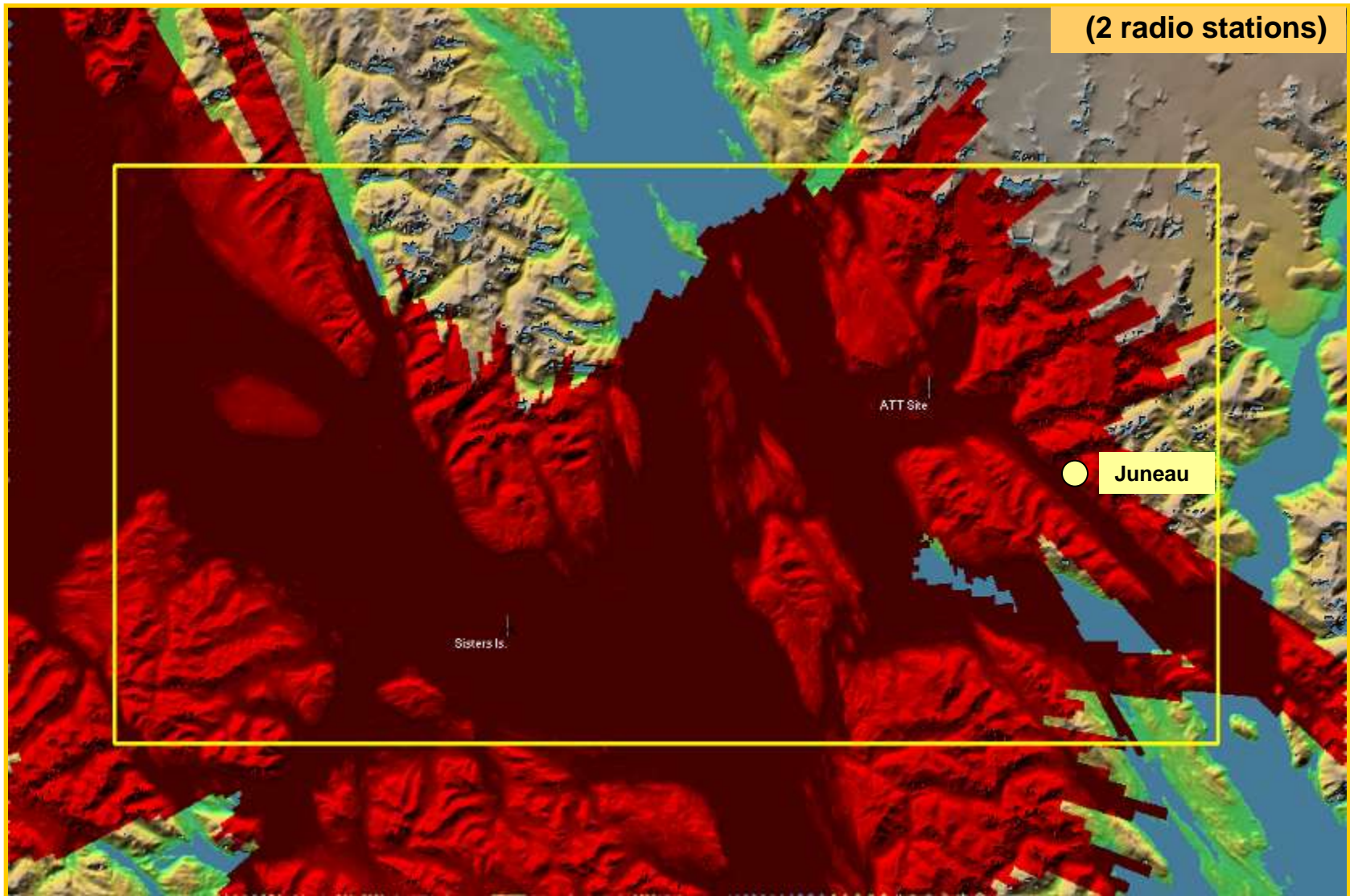
## ➤ **ADS-B**

- Williams – communications and ADS-B equipment installations complete. Testing in progress. Operational Sept 2010

## ➤ **WAM**

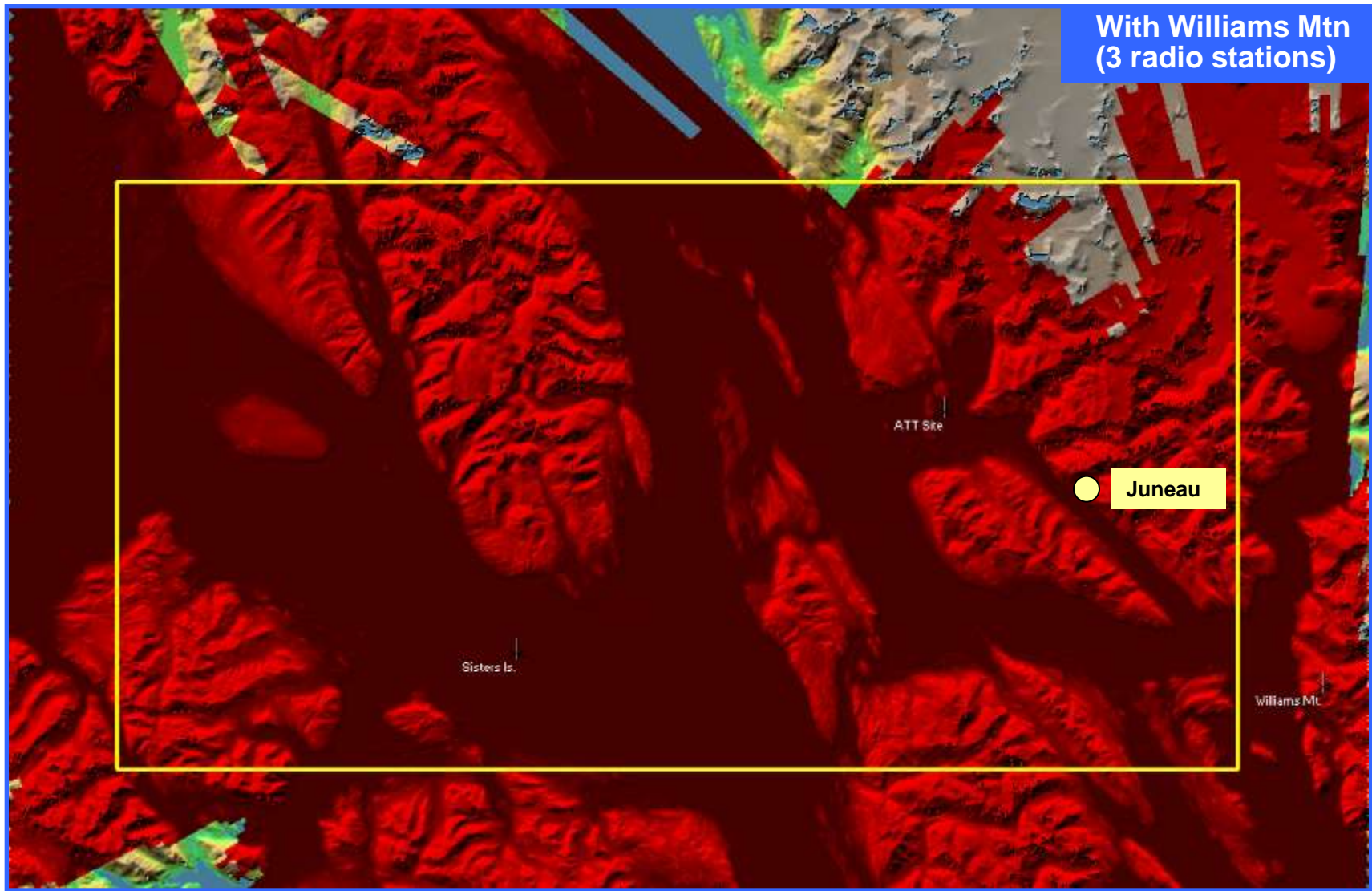
- Williams - communications and Sensis equipment installations and testing completed. Operational Sept 2010
- Lynns - communications and Sensis equipment installations and testing completed. Operational Sept 2010

# Current ADS-B Coverage – 5,000 ft ASL





# Fall 2010 ADS-B Coverage – 5,000 ft ASL



# IFR Airport Status – AWOS (Weather)

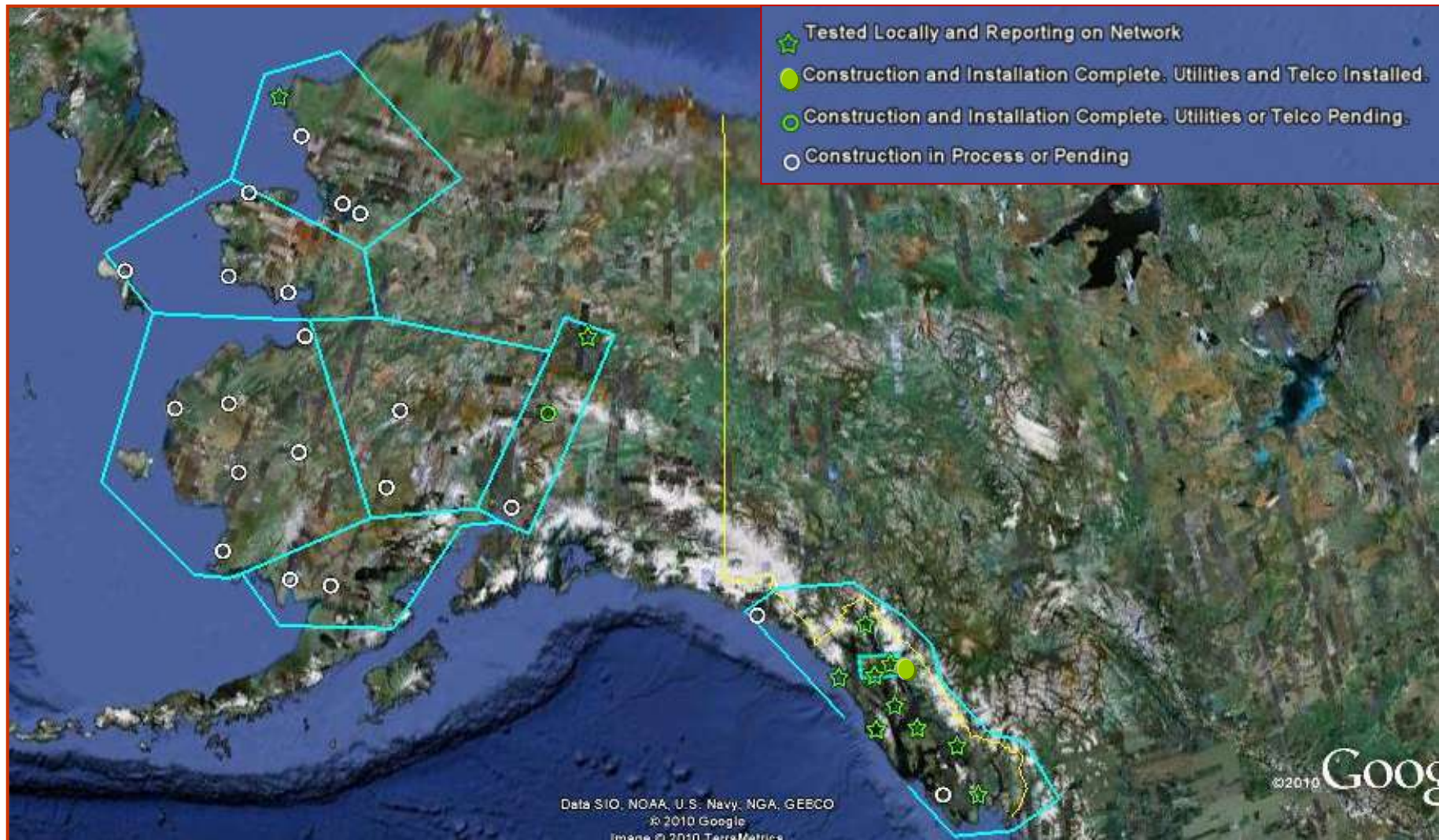
- **Noorvik** - plant and electronics work is 98% complete. JAI for Noorvik is on hold pending availability of a circuit in ZAN. The ZAN circuits are being modified this month. JAI expected in September 2010.
- **Brevig Mission** - lease signed; building is on-site. Installation planned for June – August 2010. Power will not be available until August. The ZAN circuits are being modified this month. JAI expected in September 2010.
- **White Mountain** - lease signed, building is on-site. Installation expected in August 2010. Power is available.
- **Elim** – Notice of actual construction or alteration (Form 7460) completed; building permit and lease in process. Construction is planned for 2011.

# IFR Airport Status – RCO (Communications)

- **Brevig Mission** – Expected completion September 2010.
- **White Mountain** - Expected completion September 2010. Delayed pending coverage analysis and technical interface solution



# ITT ADS-B Deployment Status – Alaska





# ITT ADS-B Deployment Status – Alaska

Civil Works Complete							
	% Complete	Complete	Aug	Sep	Oct	Nov	Dec
SV-178 Juneau En Route	100%	2	1				
SV-324 Southeast Alaska En Route	78%	7	1	1			
SV-329 Anchorage - Fairbanks En Route	67%	2		1			
SV-332 McGrath - Upper Kuskokwim En Route	0%						2
SV-333 Yukon - Kuskokwim Delta En Route	0%		2	5			1
SV-334 Nome - Seward Peninsula En Route	0%			2	2		
SV-336 Kotzebue - Northwest Alaska En Route	25%	1		1	2		
<b>TOTAL</b>	<b>36%</b>	<b>12</b>	<b>4</b>	<b>10</b>	<b>4</b>	<b>0</b>	<b>3</b>
<b>Cumulative</b>		<b>12</b>	<b>16</b>	<b>26</b>	<b>30</b>	<b>30</b>	<b>33</b>
<b>Cumulative</b>		<b>36.36%</b>	<b>48.48%</b>	<b>78.79%</b>	<b>90.91%</b>	<b>90.91%</b>	<b>100.00%</b>

- **Alaska schedule continues to evolve**
- **Substantial weather impacts in southeast even in July (airlifts inhibited)**
- **Towers, load frames, and shelters for western sites in shipment to Alaska**
- **Several general contractors being contracted to support GCI site build-out in parallel**
- **Several sites remain undefined. FAA investigating potential MARS co-locate (No other infrastructure to provide similar coverage)**

# External Agreement - Alaska

- **Recommend implementing SBS services (including 3 AWOS/1 RCO) in 3 additional service volumes (SVs) - 326(3), 327(4), and 328(5).**
- **Validate actual benefits and recommend installing 5 additional weather services (AWOS) in SV 333(10)**
- **Complete cost/benefit analysis and submit to ATO-F for review/concurrence**
- **Prepare for Executive Council review/approval in November**

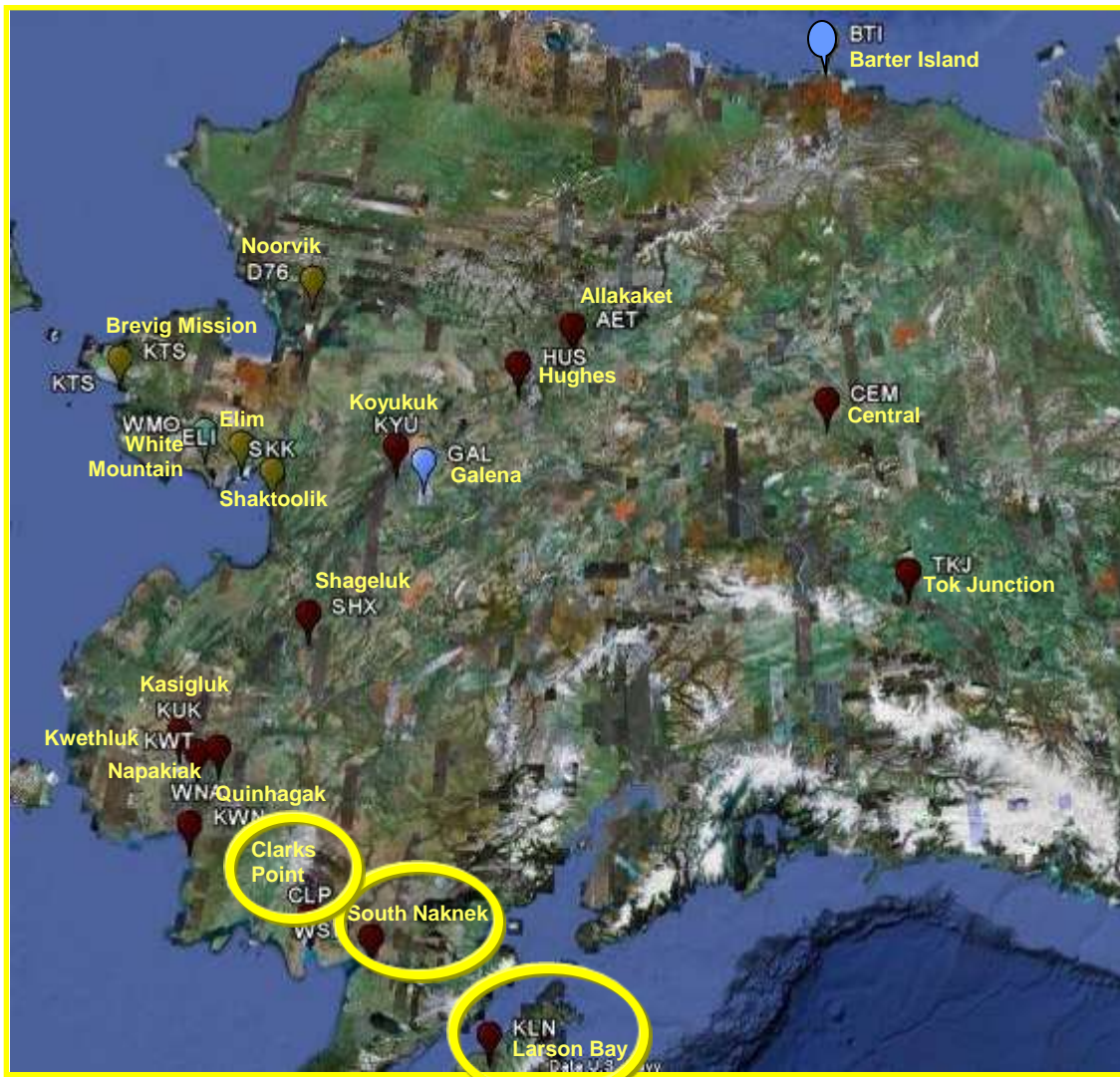
# Alaska Ground Infrastructure Deployment Proposed Expansion





# IFR Airport Upgrades

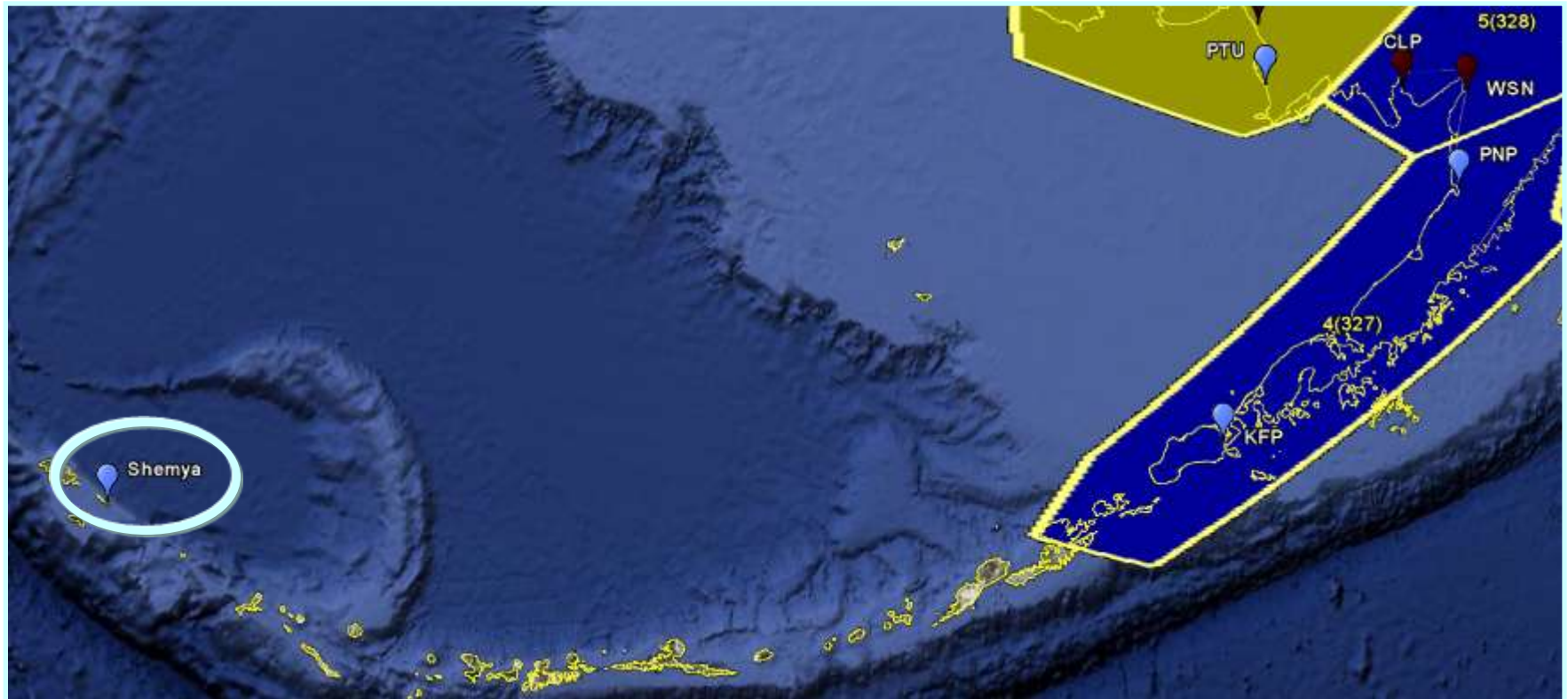
Finish SV 326(3), 327(4), and 328(5) - (3 AWOS & 1 RCO)



Needs new AWS	Airport Code
Barter Island-installed	BTI
Galena-installed	GAL
FY 10 Installation	
Noorvik (Dec 2009)	D76
Shaktolik (Dec 2009)	SKK
Elim	ELI
Brevig Mission	KTS
White Mountain	WMO
Installation based on equipage	
Hughes	HUS
Allakaket	AET
Central	CEM
Larson Bay	KLN
Kasigluk	KUK
Koyukuk	KYU
Kwethluk	KWT
Napakiak	WNA
Quinhagak	KWN
Clarks Point	CLP
Shageluk	SHX
South Naknek	WSN
Tok Junction	TKJ
RCO	Airport Code
FY 10 Installation	
Brevig Mission	KTS
White Mountain	WMO
Installation based on equipage	
Larson Bay	KLN



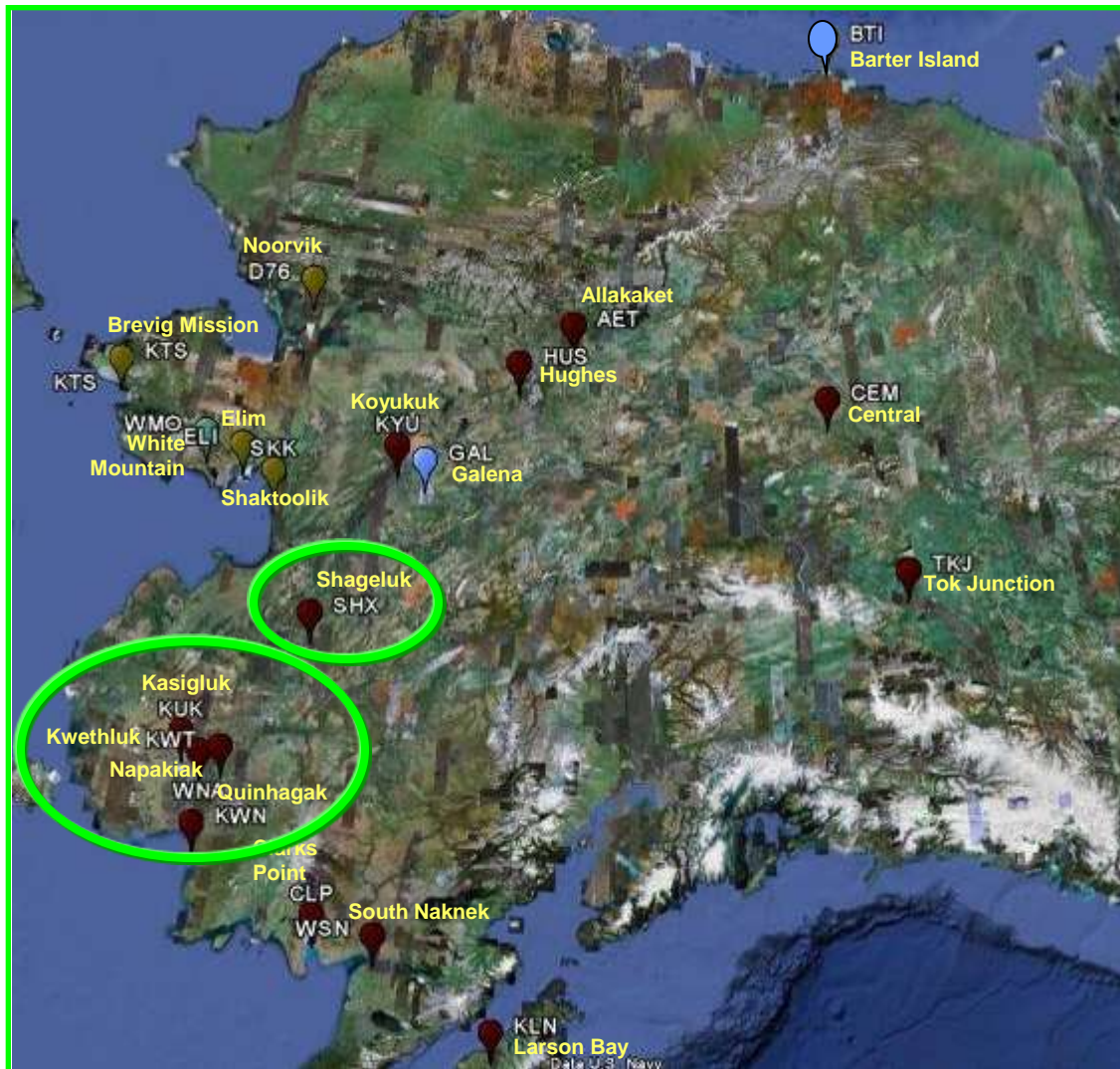
# Alaska ADS-B Coverage



- **Modify SV 327(4) with additional site in the western Aleutian Chain**

# IFR Airport Upgrades – SV 333(10)

Complete SV 333(10) weather services in (5 AWOS)



Needs new AWS	Airport Code
Barter Island-installed	BTI
Galena-installed	GAL
<b>FY 10 Installation</b>	
Noorvik (Dec 2009)	D76
Shaktolik (Dec 2009)	SKK
Elim	ELI
Brevig Mission	KTS
White Mountain	WMO
<b>Installation based on equipage</b>	
Hughes	HUS
Allakaket	AET
Central	CEM
Larson Bay	KLN
Kasigluk	KUK
Koyukuk	KYU
Kwethluk	KWT
Napakiak	WNA
Quinhagak	KWN
Clarks Point	CLP
Shageluk	SHX
South Naknek	WSN
Tok Junction	TKJ
RCO	Airport Code
<b>FY 10 Installation</b>	
Brevig Mission	KTS
White Mountain	WMO
<b>Installation based on equipage</b>	
Larson Bay	KLN



# Alaska Ground Infrastructure Deployment

2010-Upgrade all 27 existing GBTs to the end-state ITT system

Complete SV 324, 334, and 336 (6 radios) with new ITT systems

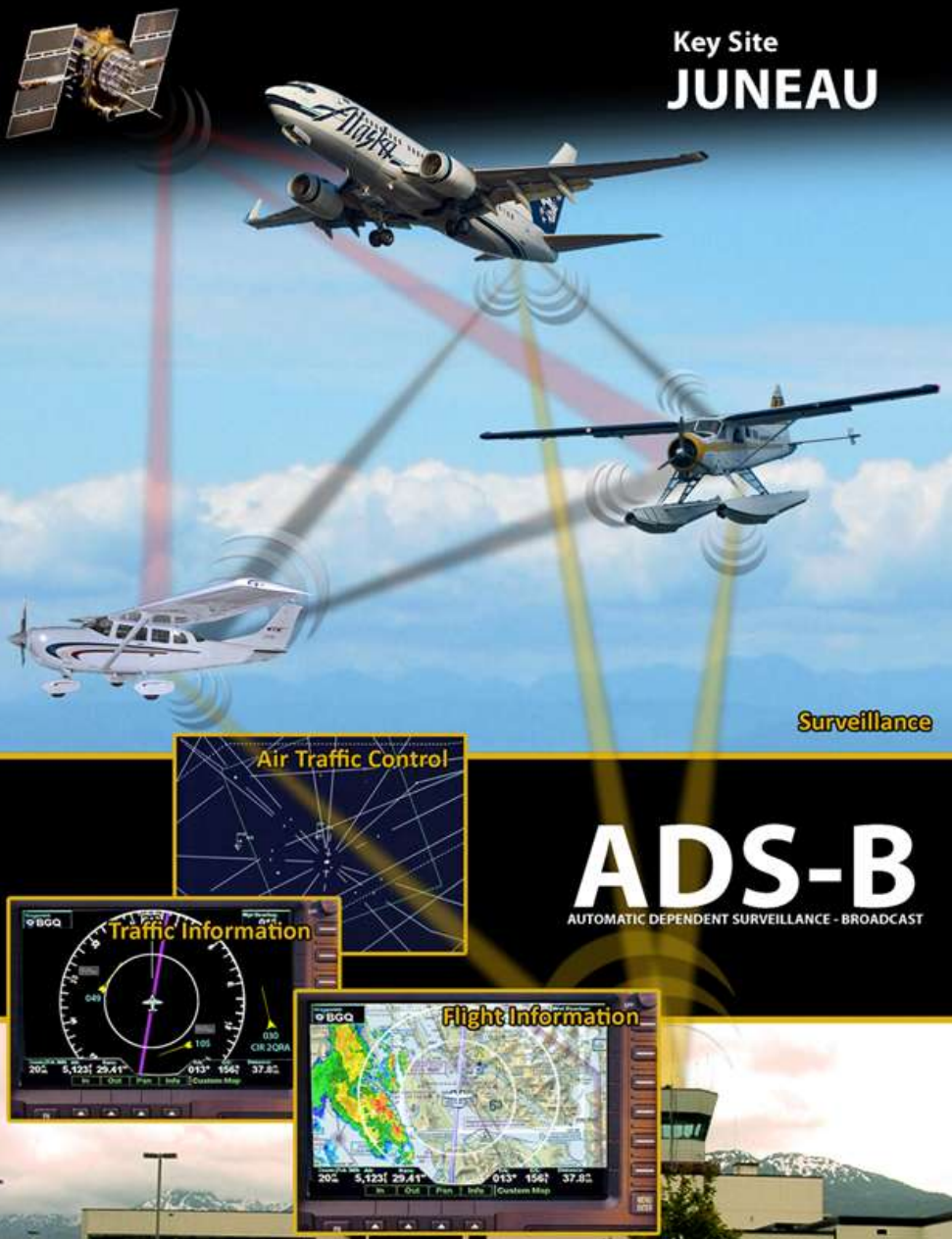
Install 5 new AWOS

Seek approval for 326, 327, and 328 by September 2010

## Service Volume Rollout

FY10  
FY11-13

Continue Business Case Analysis / AIC Plan Update for 325, 330, 331, 335, 337



Surveillance & Broadcast Services. WSA

**(W) 907-271-5780 – Program office**

[www.adsb.gov](http://www.adsb.gov)



# GNSS Update

- **The GEO is still broadcasting, WAAS signals remain accurate and available, but it could go any day now. The NOTAMs are ready to be issued**
- **GNSS management has gone to the Hill on three occasions to brief Alaska staffers for Begich, Murkowski and Young, on the GEO issue**

*Please contact JoAnn Ford for additional information  
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